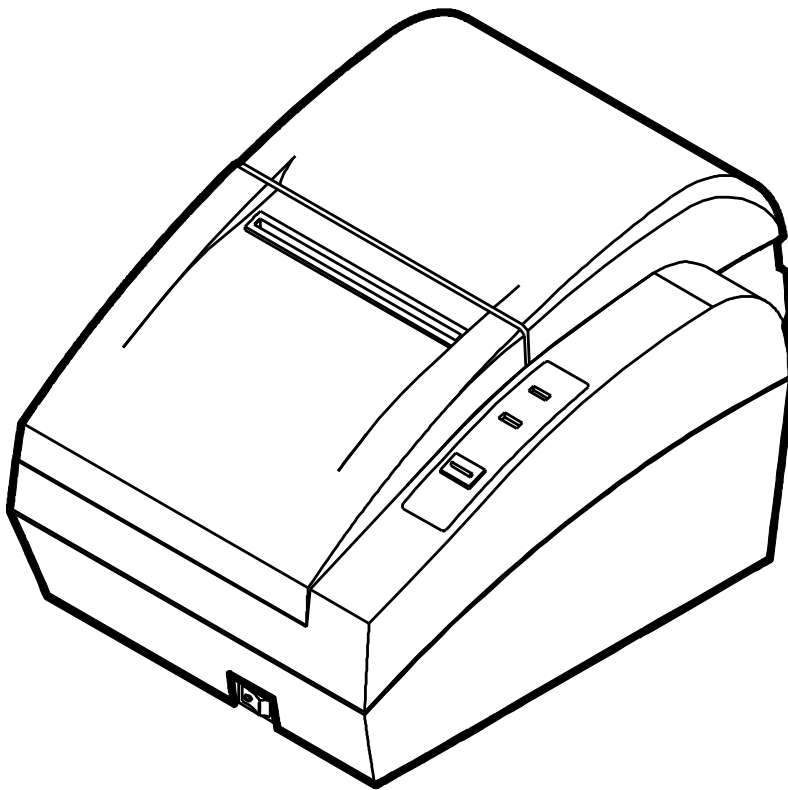




Windows Driver Manual

STP-131

Thermal Printer
Rev. 2.05



<http://www.bixolon.com>

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1. Manual Information

This Windows Driver Installation Manual provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Operating System (OS) Environment

The following operating systems are supported for usage.

- Microsoft Windows XP (32bit/64bit)
- Microsoft Windows Server 2003 (32bit/64bit)
- Microsoft Windows VISTA (32bit/64bit)
- Microsoft Windows Server 2008 (32bit/64bit)
- Microsoft Windows Server 2008R2 (32bit/64bit)
- Microsoft Windows 7 (32bit/64bit)
- Microsoft Windows 8 (32bit/64bit)

3. Windows Driver Preparation

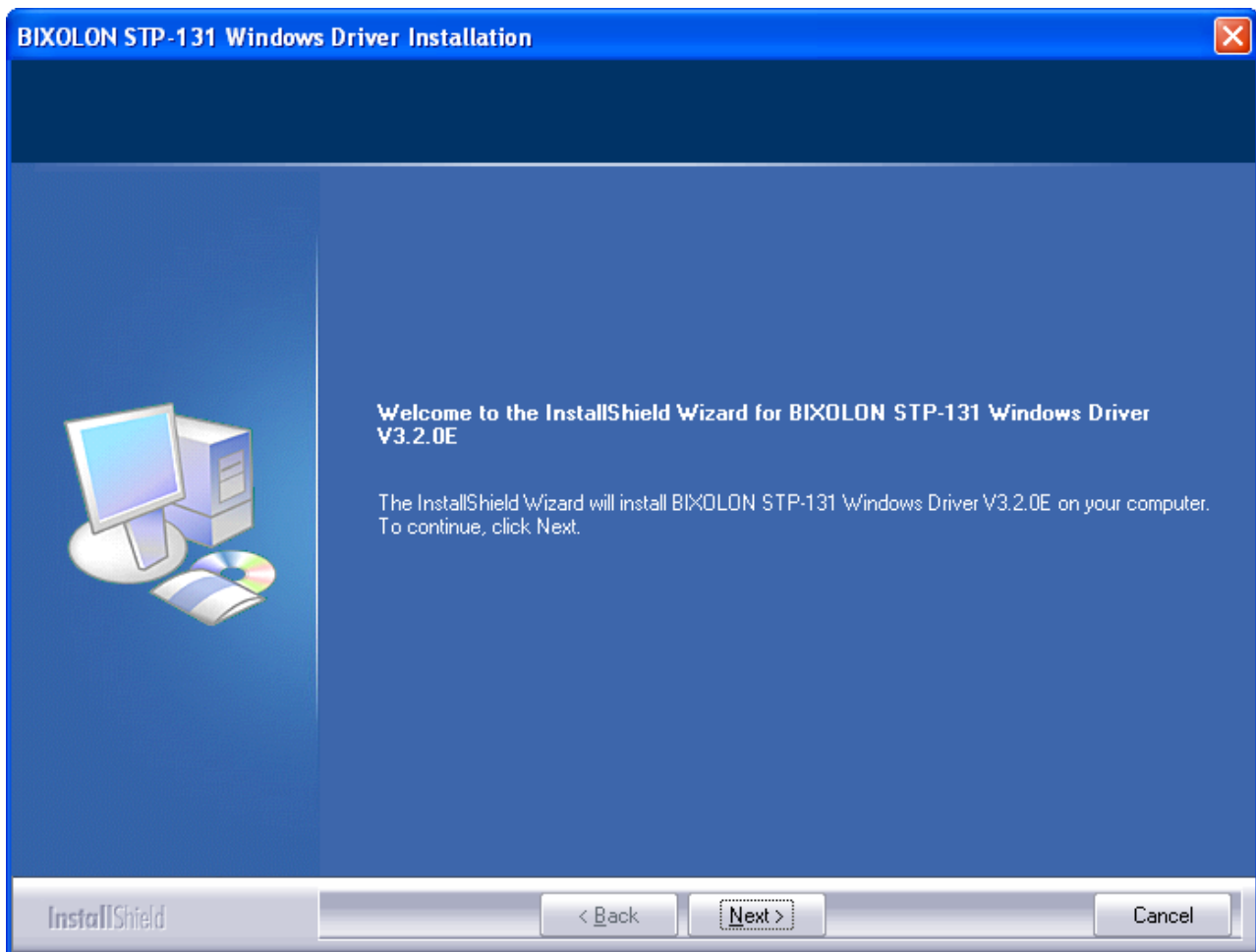
The Windows Driver is included in the enclosed CD, and Latest file versions can be downloaded from the Bixolon website. (www.bixolon.com)

4. Windows Driver Installation

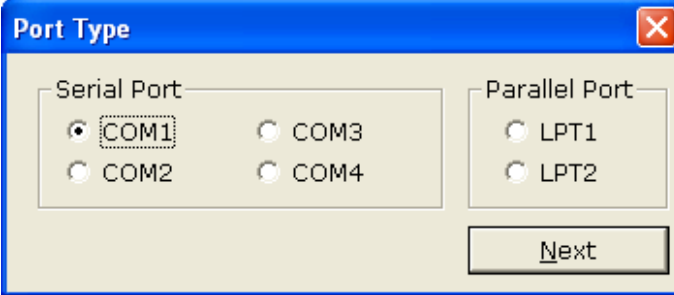
4-1 Installing on Windows XP / Server 2003

4-1-1 Via Serial Port or Parallel Port

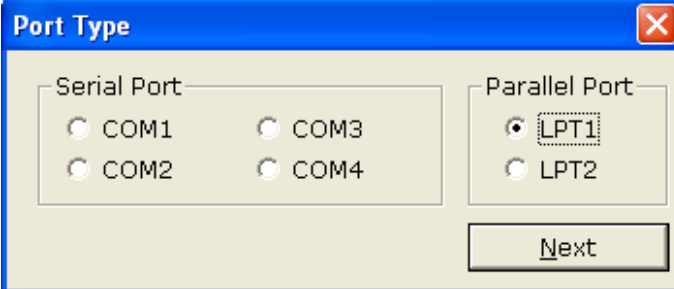
- 1) Double-click the Windows Driver installation file.
- 2) Click the “Next” button.



- 3) Select the COM or LPT (Which one you want to use) port to be used and click the “Next” button.



The "Port Type" dialog box has a blue title bar with a close button. It contains two groups of radio buttons. The "Serial Port" group has four options: COM1 (selected), COM2, COM3, and COM4. The "Parallel Port" group has two options: LPT1 and LPT2. A "Next" button is located at the bottom right.

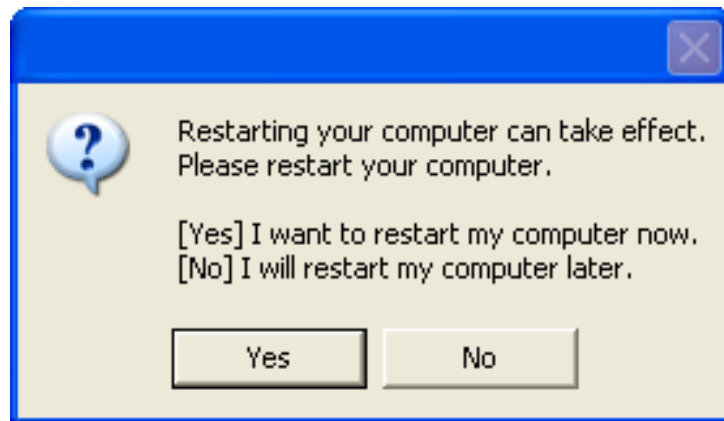


The "Port Type" dialog box is identical to the one above, but the "LPT1" radio button in the "Parallel Port" group is selected instead of a serial port.

- 4) When the following message box appears, click the “Continue Anyway” button.



5) Clicking the “Yes” button will reboot the PC.

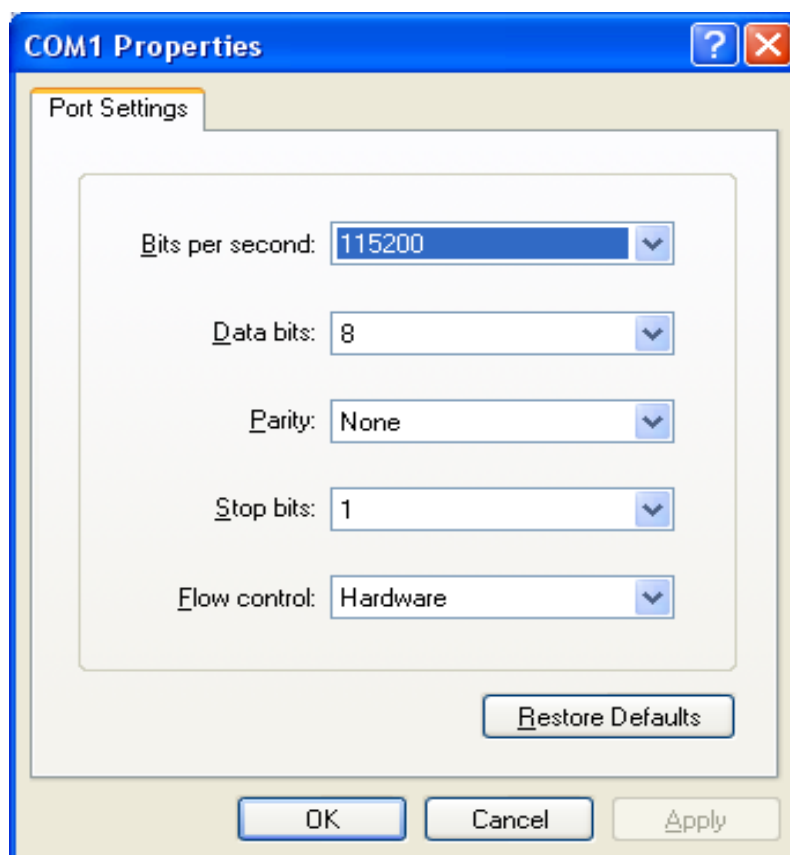


6) Open the printer properties window in the Windows OS.

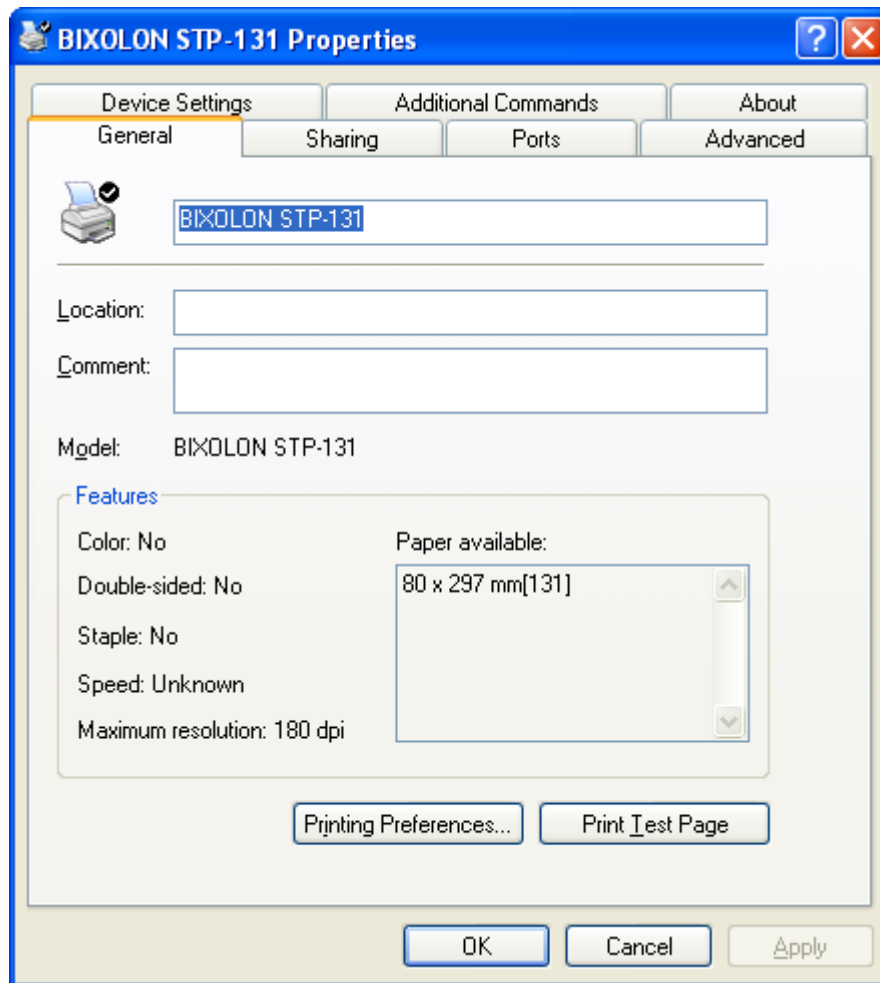
7) Click the “Port Settings” button in the “Ports” tab.

8) Match the communication settings to those of the printer.

(The communication settings of the printer can be performed by conducting a self-test.)



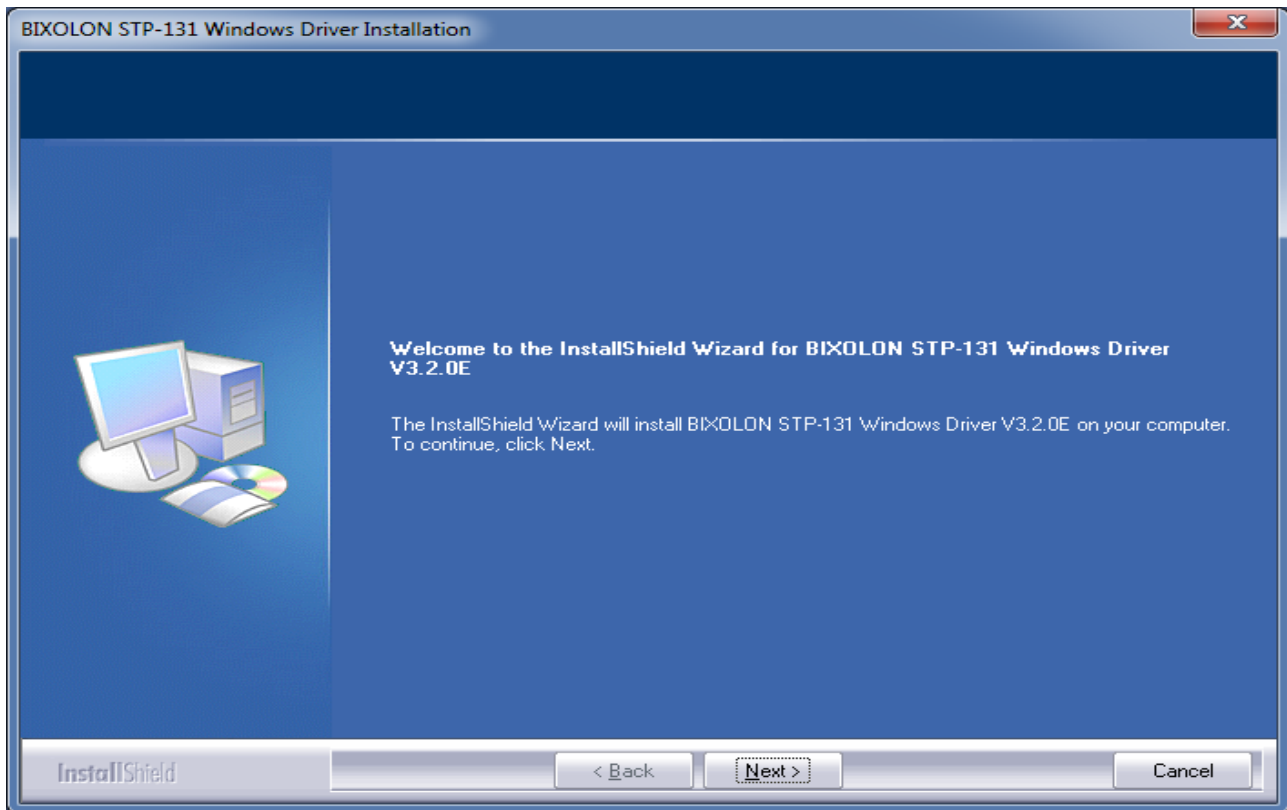
9) Click the “Print Test Page” button and check printing status.



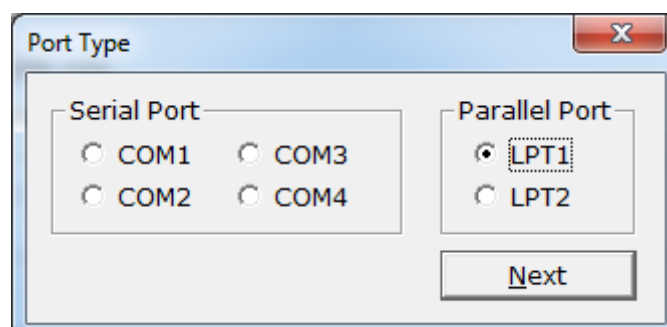
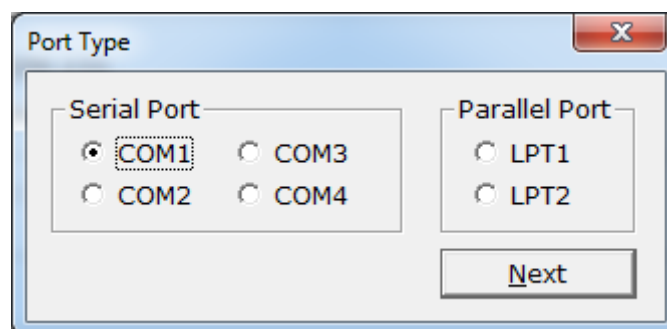
10) Proper installation of the driver is indicated if the test page is printed normally.

4-2 Installing on Windows VISTA / Server 2008 / 7 / 8**4-2-1 Via Serial Port or Parallel Port**

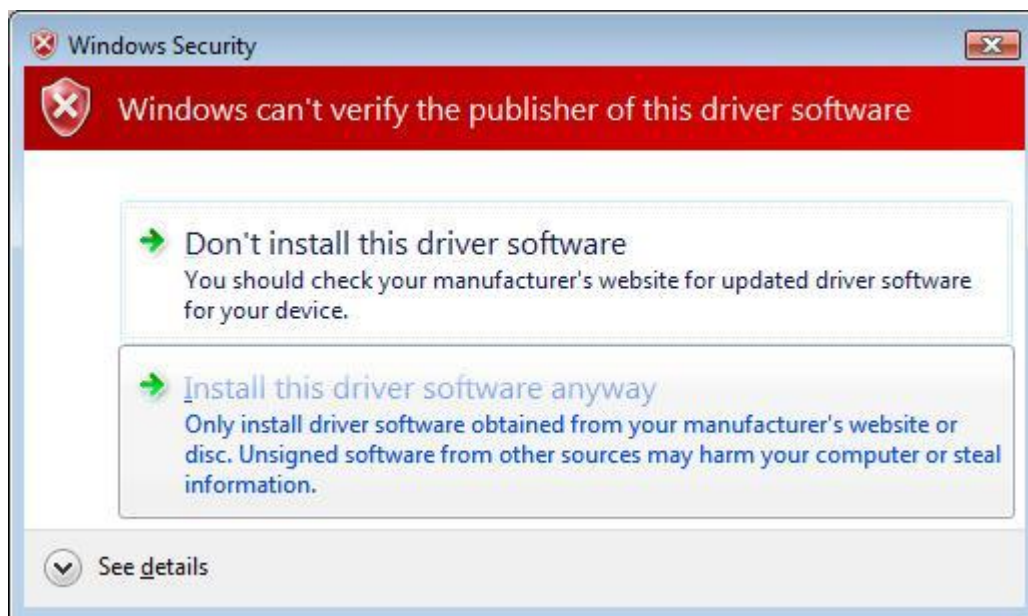
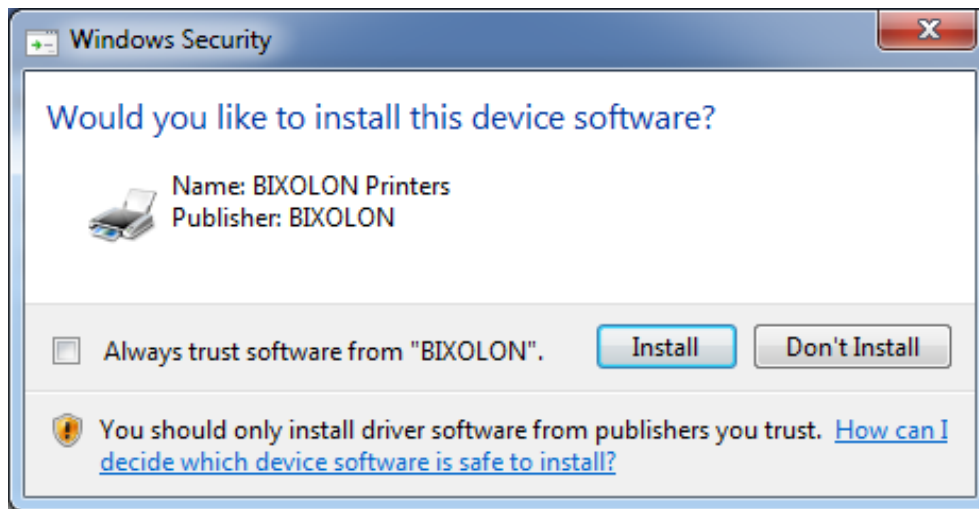
- 1) Double-click the Windows Driver installation file.
- 2) Click the “Next” button.



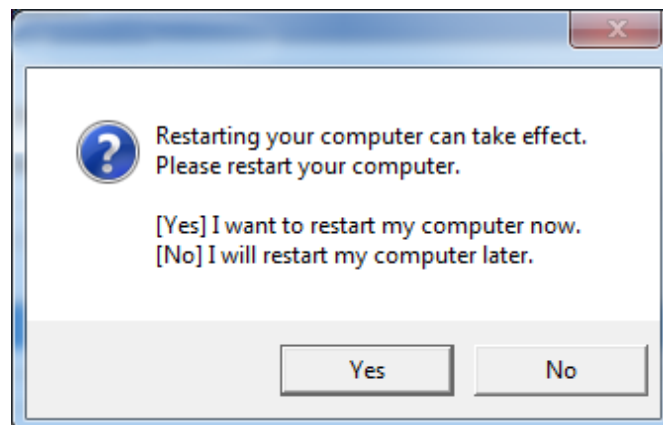
- 3) Select the COM or LPT (Which one you want to use) port to be used and click the “Next” button.



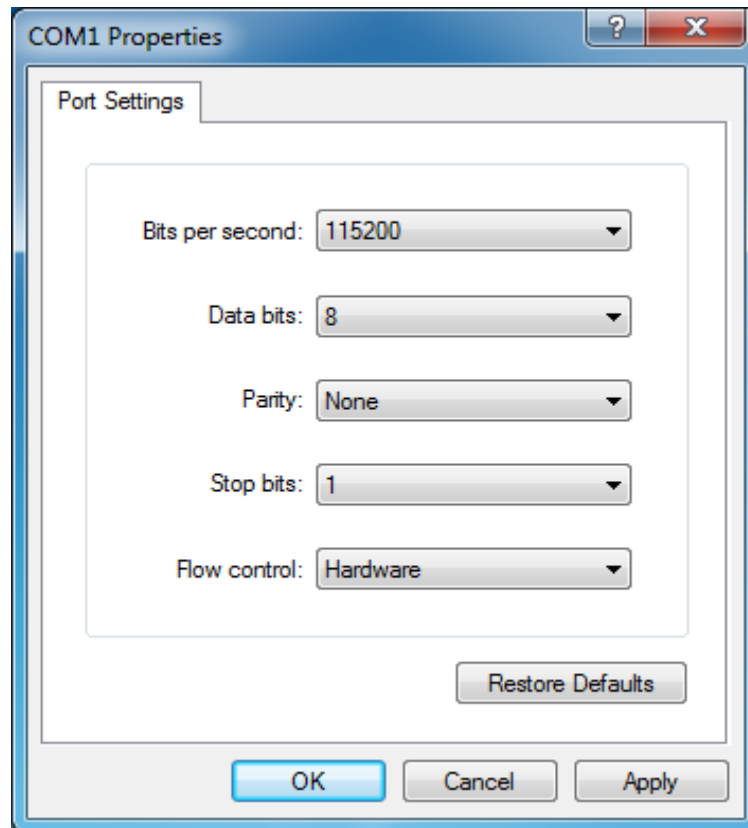
4) If the following message boxes appear, click the “Install” button or click the “Install this driver software anyway” button.



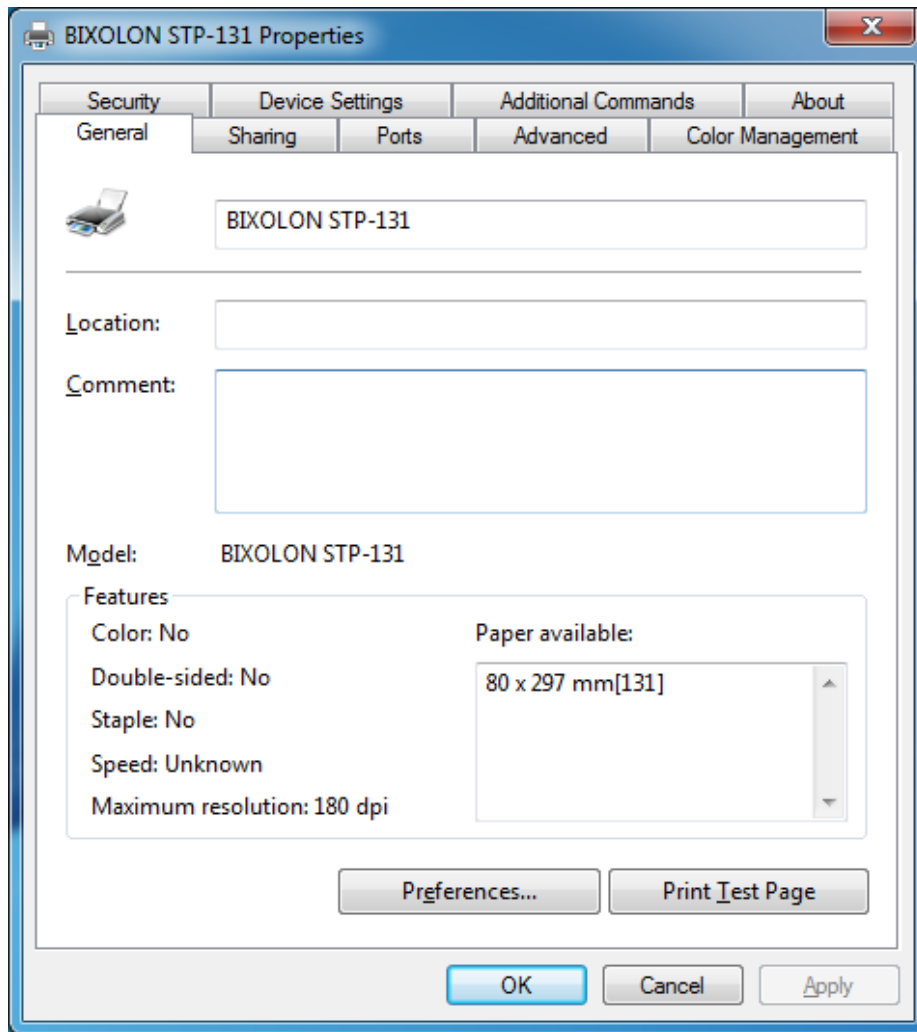
5) Clicking the “Yes” button will reboot the PC.



- 6) Open the printer properties window in the Windows OS.
- 7) Click the “Configure Port...” button in the “Ports” tab.
- 8) Match the communication settings to those of the printer.
(The communication settings of the printer can be performed by conducting a self-test.)



9) Click the “Print Test Page” button and check printing status.



10) Proper installation of the driver is indicated if the test page is printed normally.

5. Detailed Windows Driver Settings

The following functions can be set in detail after the Windows Driver installation is complete.

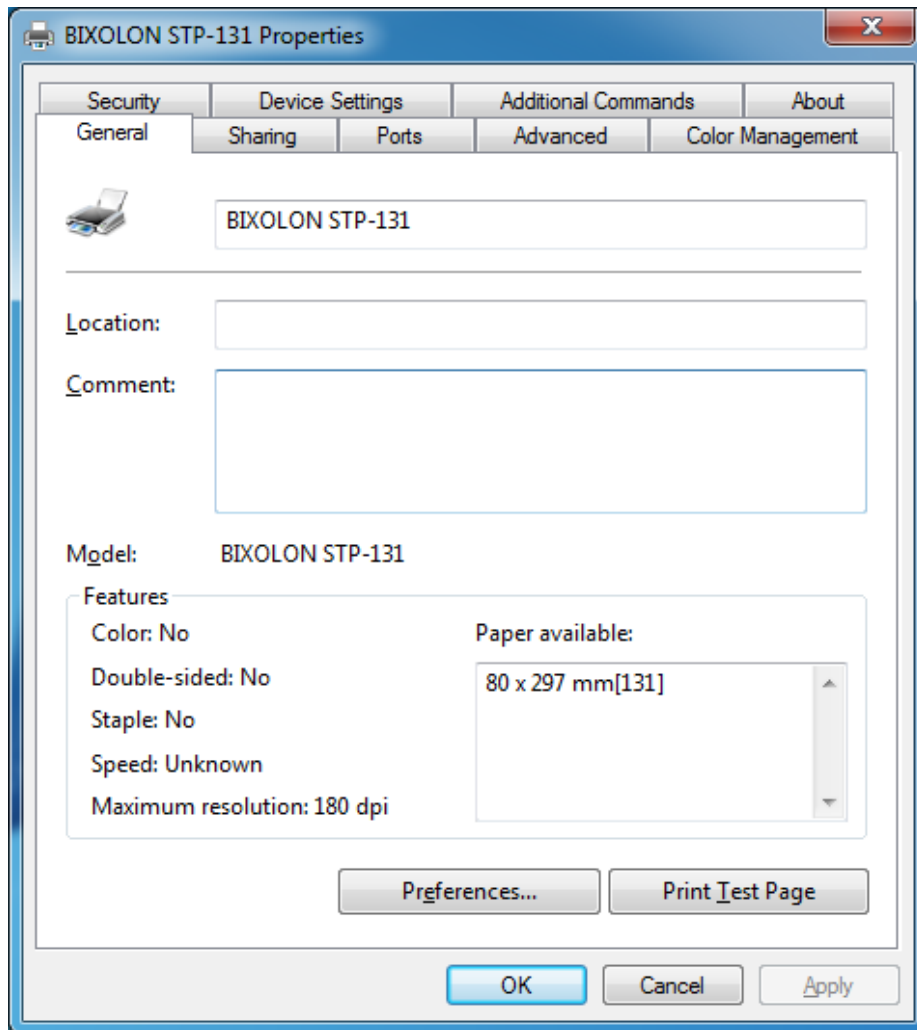
5-1 Paper Supply Method

The printer structure is such that the print head, which carries out printing, and the cutter, which cuts the printing paper, are separated. After printing, the location of the end section can be adjusted as follows.

Automatically Select Receipt[Partial Cut]	: Select the "Receipt[Partial Cut]" automatically. : After printed text is transferred up to the cutter (auto cutter), a paper is cut by auto cutter.
Receipt[No Cut]	: Printed text is transferred up to the cutter (manual cutter).
Receipt[Partial cut without paper feeding]	: A paper is cut by auto cutter without paper feeding.
Receipt [No feed]	: Printed text is transferred up to the next line only. (minimum transfer: 0x0A).
Form[Partial Cut]	: For long print jobs, printed text is transferred and cut according to the Receipt option per selected paper size.
Form[No Cut]	: For long print jobs, printed text is transferred according to the Receipt option per selected paper size

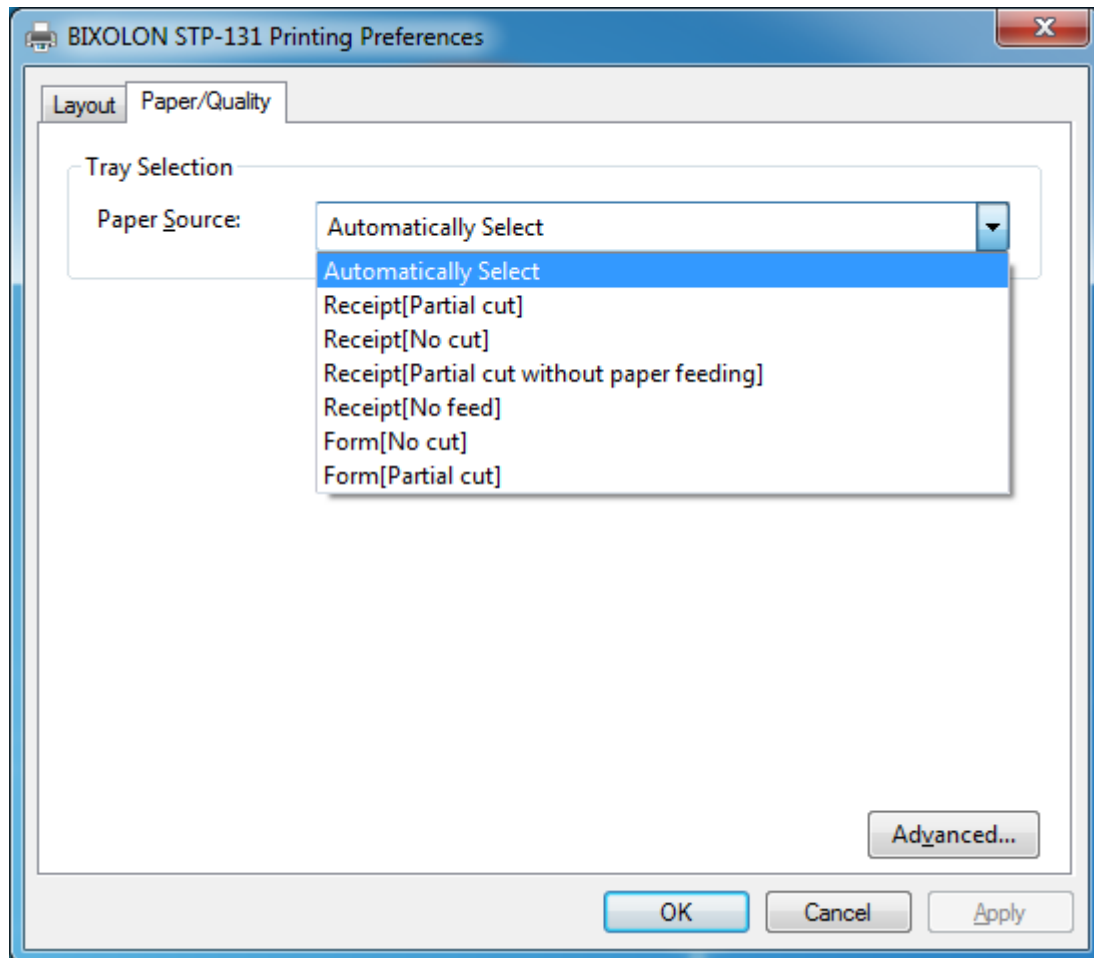
Detailed setting can be done as follows.

1) Open the printer properties window in the Windows OS.



2) Click the “Printing Preferences...” button in the “General” tab.

3) Select the desired setting in the “Paper/Quality” tab. (Resolution is fixed at 180 × 180.)



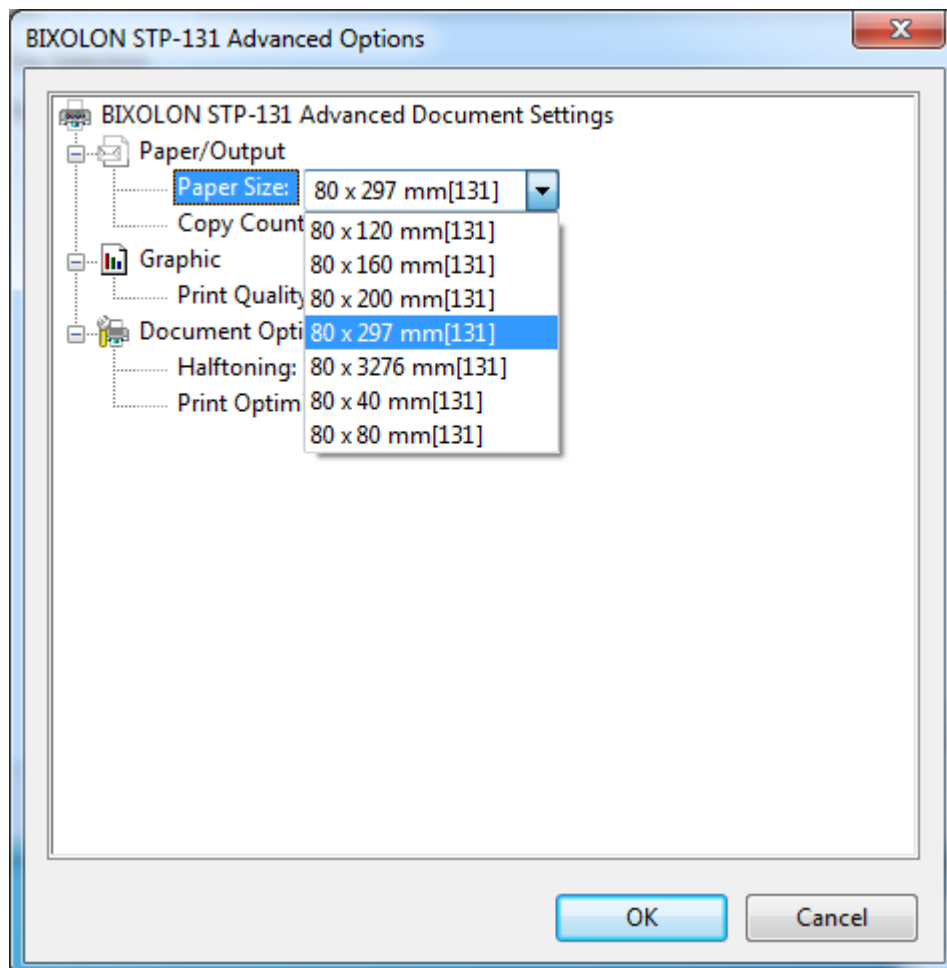
5-2 Paper Size

The paper sizes available in the Windows Driver are as follows.

80 × 40 mm[131]	80 × 297 mm[131]
80 × 80 mm[131]	80 × 3276 mm[131]
80 × 120 mm[131]	
80 × 160 mm[131]	
80 × 200 mm[131]	

Detailed setting can be done as follows.

- 1) Open the printer properties window in the Windows OS.
- 2) Click the “Printing Preferences” button in the “General” tab.
- 3) Select the “Paper/Quality” tab, and click the “Advanced” button.
Select the desired setting.



5-3 Additional Commands

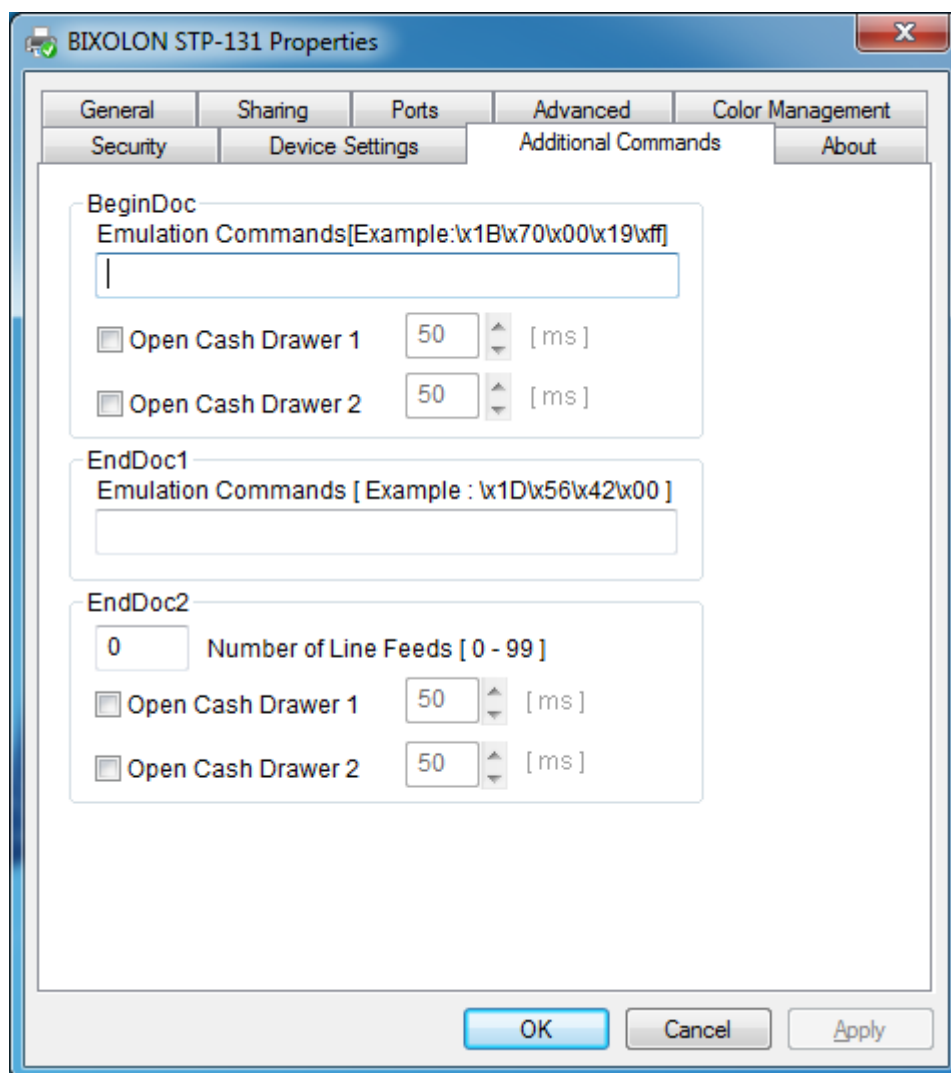
The Windows Driver serves to receive the content for print from an application and send it to the printer. The Additional Commands function allows for the addition of desired commands at the beginning or end of the print content sent to the printer.

The command functions available are as follows.

BeginDoc : Addition of command at the beginning of the print content.
EndDoc1 : Addition of command at the end of the print content.
EndDoc2 : Addition of line feeding at the end of the print content.

Detailed setting can be done as follows.

- 1) Open the printer properties window in the Windows OS.
- 2) Click the “Additional Commands” tab.



- 3) If the user wishes to open Cash Drawer 1 prior to printing, enter “\x1B\x70\x00\x19\xff” in the “BeginDoc” space and click the “OK” button.
- 4) If the user wishes to open Cash Drawer 1 at the end of printing, enter “\x1B\x70\x00\x19\xff” in the “EndDoc1” space and click the “OK” button.
- 5) If the user wishes to feed three lines at the end of printing, enter “3” in the “EndDoc2” space and click the “OK” button.
- 6) When downloading an image to the printer using the NV Image Tool, the image print command is FS p n m (Hex: 1C 70 m n).

In following, enter “\x1C\x70\x01\x00” in either the “BeginDoc” or “EndDoc1” space, and click the “OK” button.

For more information on the hexadecimals that can be entered in “BeginDoc” and “EndDoc1”, refer to the Control Commands Manual.

6. Windows Driver Specifications

6-1 Fonts

The Windows Driver of the printer supports the fonts listed below.

Printing is done at faster speed when using the fonts below as opposed to the Windows fonts of the OS.

Printer Fonts			Character Size (dot)	Sizes (point)
FontA1x1	FontA1x1[Ext.]	FontA1x1[255]	FontA1x1(12x24)	9.5
FontA1x2	FontA1x2[Ext.]	FontA1x2[255]	FontA1x2(12x48)	19
FontA2x1	FontA2x1[Ext.]	FontA2x1[255]	FontA2x1(24x24)	9.5
FontA2x2	FontA2x2[Ext.]	FontA2x2[255]	FontA2x2(24x48)	19
FontB1x1	FontB1x1[Ext.]	FontB1x1[255]	FontB1x1(9x17)	7
FontB1x2	FontB1x2[Ext.]	FontB1x2[255]	FontB1x2(9x34)	13.5
FontB2x1	FontB2x1[Ext.]	FontB2x1[255]	FontB2x1(18x17)	7
FontB2x2	FontB2x2[Ext.]	FontB2x2[255]	FontB2x2(18x34)	13.5

Printer Fonts are defined as follows.

1) FontA1x2

- ANSI Character code support (Code Page 2: 850: Mapping WPC1252)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 19

2) FontA1x2[Ext]

- IBM expansion Character code support (Code Page 0: 437)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 19

3) FontA1x2[255]

- Buyer exclusive code support (Code Page 255)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 19

6-2 Special Functions

The Windows Driver supports the special functions indicated below.
 These special functions are available when using the characters after the “FontControl” font is selected.

This function is not an ordinary character printing function. Take special care.

Character	Special Function
5	Prints HT (0 x 09)
6	Prints LF (0 x 0A)
7	Prints CR (0 x 0D)
a	Open Drawer 2 (50ms drive pulse width)
b	Open Drawer 2 (100ms drive pulse width)
c	Open Drawer 2 (150ms drive pulse width)
d	Open Drawer 2 (200ms drive pulse width)
e	Open Drawer 2 (250ms drive pulse width)
g	Cut Receipt (partial cut) without paper feeding
p	Does not add HRI characters to the barcode
q	Adds HRI characters in FontA above the barcode
r	Adds HRI characters in FontA below the barcode
s	Adds HRI characters in FontB above the barcode
t	Adds HRI characters in FontB below the barcode
w	Aligns text to the left
x	Aligns text to the center
y	Aligns text to the right
A	Open Drawer 1 (50ms drive pulse width)
B	Open Drawer 1 (100ms drive pulse width)
C	Open Drawer 1 (150ms drive pulse width)
D	Open Drawer 1 (200ms drive pulse width)
E	Open Drawer 1 (250ms drive pulse width)
G	Prints 1 st NV bit image
H	Prints 2 nd NV bit image
I	Prints 3 rd NV bit image
J	Prints 4 th NV bit image
K	Prints 5 th NV bit image
P	Cut Receipt (partial cut)
[Prints 1 st NV bit image in double-sized mode.
]	Prints 2 nd NV bit image in double-sized mode.
^	Prints 3 rd NV bit image in double-sized mode.
_	Prints 4 th NV bit image in double-sized mode.
`	Prints 5 th NV bit image in double-sized mode.

1) Sample Use

If the "FontControl" font is selected and 6 is entered, the "LF" (Line Feeding) operation is activated.

(does not entail the printing of the character "6")

2) "FontControl" Font Function

Printer Font for Special Function	Function	Size (point/dot)
FontControl	Open Drawer 1/2 Cut receipt Cut receipt(without paper feeding) Justification (Left/Center/Right) Output HT, Output LF, Output CR Barcode Printing Print NV Image	(9.5 / 12x24)

6-3 Barcodes

The Windows Driver supports the barcodes indicated below.
This function is available when entering barcode data after selecting "Printer Font Name".
In addition, the "FontControl" font can be used to add HRI characters.

Printer Font Name	Size	Supported Characters
Codabar	20/40/60/80	Numeric: 0~9 Symbols: \$, +, -, ., /, : Letters: A~D
Code39	20/40/60/80	Numeric: 0~9 Symbols: \$, +, -, ., / Letters: A~Z
JAN13(EAN)	20/40/60/80	Numeric: 0~9
JAN8(EAN)	20/40/60/80	Numeric: 0~9
ITF	20/40/60/80	Numeric: 0~9
UPC-A	20/40/60/80	Numeric: 0~9
Code93	20/40/60/80	ASCII CODE: 0~127
Code128	20/40/60/80	ASCII CODE: 0~127

1) Sample Use

Select "Code39" and Size "20", and then enter "1234".
The barcode corresponding to "1234" is printed.

2) When Using Code128

Select "Code128" and Size "20", and then enter "{B1234".
The barcode corresponding to "1234" is printed.

When using "Code128", characters, such as "{A", "{B", "{C", must be included before the input data.

7. Use of Windows Driver

7-1 Use of Visual Basic

This section explains the use of the Windows Driver with Visual Basic to control the printer (STP-131).

7-1-1 Windows Driver Selection

The following code is an example of the selection of the “BIXOLON STP-131” Windows Driver.

```
For Each prnPrinter In Printers
  If prnPrinter.DeviceName = "BIXOLON STP-131" Then
    Set Printer = prnPrinter
  Exit For
End If
Next
```

7-1-2 Test Printing

The following code is an example of the printing of Arial Test via the Windows font, and FontA1x1Test via the printer font.

```
'Print in Windows font
Printer.FontSize = 9
Printer.FontName = "Arial"
Printer.Print "Arial Test"

'Print in printer font
Printer.FontSize = 9.5
Printer.FontName = "FontA1x1"
Printer.Print "FontA1x1Test"

Printer.EndDoc
```

7-1-3 Barcode Printing

The following code is an example of the printing of the JAN8 (EAN) barcode.

```
'Print Bar Code.
Printer.FontSize = 20

Printer.FontName = "JAN8 (EAN)"
Printer.Print "1234567"

Printer.EndDoc
```

7-2 Use of WordPad

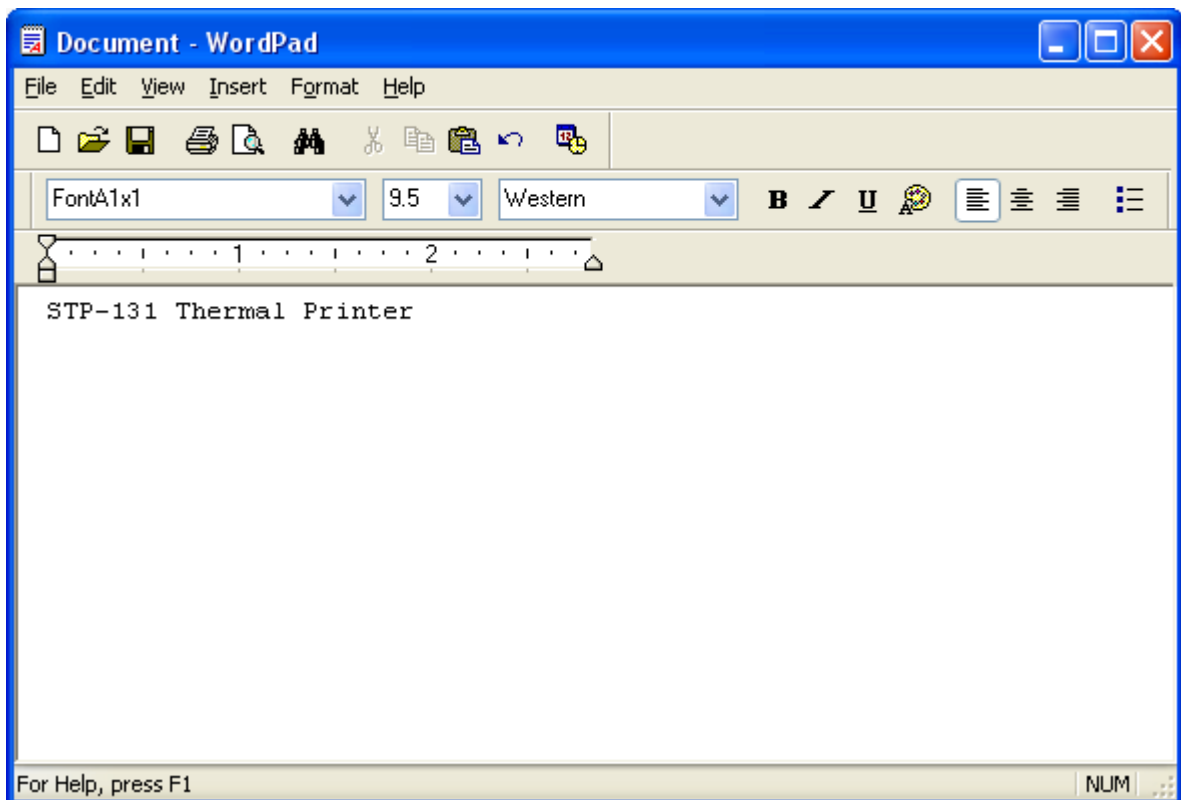
7-2-1 WordPad Environment Settings

After running Wordpad and setting the following conditions, conduct a test.

- Select Printer
After selecting “Print” from the “File” menu, select the printer (BIXOLON STP-131).
- Select Paper Size, Orientation, and Margins
After selecting “Page Setup” from the “File” menu, select the paper size, orientation, and margins.

7-2-2 Text Printing

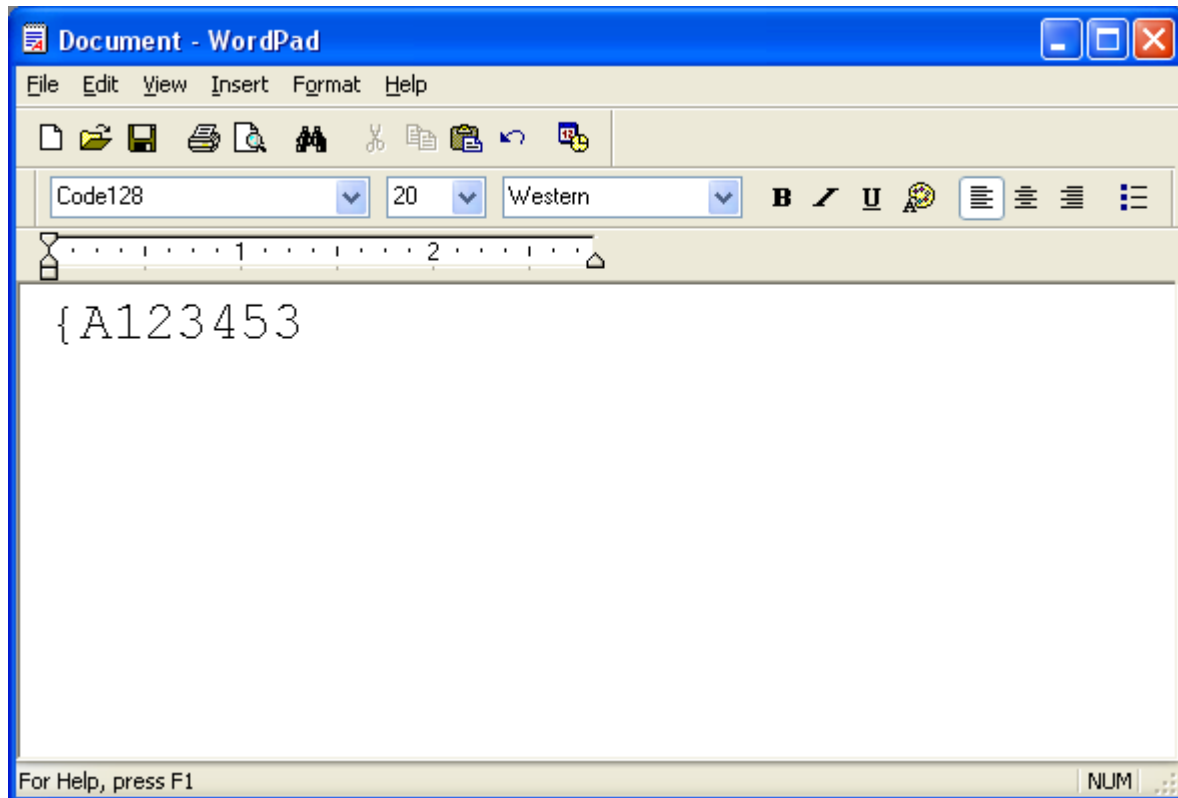
Use the Windows Driver of the printer to run a test.



- 1) Select the desired font from the Font menu (FontA 1x1).
- 2) Select the desired font size (9.5).
- 3) Enter the text to be printed in Wordpad.
- 4) Click the Print button in the toolbar to print.

7-2-3 Barcode Printing

Use the Windows Driver of the printer to print the barcode.



- 1) Select the desired barcode from the Font menu (Code128).
- 2) Select the desired font size (20).
- 3) Enter "{A123453" in Wordpad.
- 4) Click the Print button in the toolbar to print.